BG openings for receiving one or more corresponding threaded fasteners extending from a bottom surface of said base plate.

REMARKS

Claims 1 through 17 and 20 are pending in the application. Claims 2-6 and 13 have been withdrawn from consideration as drawn to a non-elected invention. Claims 1, 10, 14-16 and 20 have been amended.

The following issues are outstanding in the office action dated February 11, 2003:

- Claim 20 has been rejected under 35 U.S.C. Section 112 (2) as being indefinite.
- Claims 1 & 10 have been rejected under 35 U.S.C. Section 102 (e) as being clearly anticipated by Morgan (U.S. Patent No. 6,202,528).
- Claims 14-20 have been rejected under 35 U.S.C. Section 102 (b) as being anticipated by Edmisson (U.S. Patent No. 4,625,810).
- Claims 14-20 have been rejected under 35 U.S.C. Section 102 (b) as being anticipated by Takahashi et al (U.S. Patent No. 4,632,074).
- Claims 14-16 have been rejected under 35 U.S.C. Section 102 (b) as being anticipated by Krebsbach (U.S. Patent No. 5,993,915).
- Claims 7-9, 11 & 12 have been rejected under 35 U.S.C. Section 103 (a) as being unpatentable over Morgan in view of Robinson (U.S. Patent No 3,104,575).

Applicant hereby traverses the outstanding rejections and requests reconsideration and withdrawal thereof in light of the amendments and remarks contained herein.

TELEPHONIC INTERVIEW

Applicant wishes to acknowledge and thank the Examiner for the telephonic interview conducted on August 7, 2003. Applicant provided the Examiner with a proposed amendment which was substantially the same as the amendment submitted herein. Applicant's attorney discussed the advantages of the present invention and how he believed it differed from the prior art of record cited in the office action. The Examiner acknowledged the arguments, but indicated that they presented new issues for consideration, which would most likely not be considered in an amendment after final. Applicant's attorney thanked Examiner Dexter for his time and indicated that a continuation or RCE would be filed to obtain consideration of the proposed amendment.

REJECTION UNDER 35 U.S.C. SECTION 112 (2)

Claim 20 has been rejected under 35 U.S.C. Section 112 (2), as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Office Action states that the recitation of "one or more threaded openings" renders the claim vague and indefinite. The Examiner suggests changing "bi-metallic block" in line 2 of the claim to –connecting means–. Applicant has amended claim 20 accordingly, and now respectfully requests the amendment be entered and the rejection withdrawn as moot.

REJECTIONS UNDER 35 U.S.C. SECTION 102

Claims 1 & 10 have been finally rejected under 35 U.S.C. Section 102 (e) as being clearly anticipated by Morgan (U.S. Patent No. 6,202,528). The Office Action states that "Morgan discloses a guide with every structural limitation of the claimed invention". Applicant

respectfully disagrees with this assertion.

The office action attempts to construe the claim element "guide block" as including guide blocks 20, guide bracket 4, and bolt plate 7 of the Morgan device. Such an interpretation clearly goes beyond the plain meaning of the term guide block as well as how the term is used in applicant's specification. Webster's New World Dictionary, Third Edition defines "block" as "any large, solid piece of wood, stone, or metal often with flat surfaces". The specification refers to a first embodiment of the invention as having a guide block 13 including a base plate 14 affixed directly to a top surface of an insert forming a unitary block which is preferably rectangular in shape. According to a second embodiment, a single piece guide block 113 is provided with a T-slot 115 for connecting the block to the shaft.

Clearly, the guide block 20 and plate 7 of Morgan do not form a "guide block" within the ordinary meaning of those terms and as descibed in the specification. The guide block 20 and plate 7 of Morgan are separated by guide bracket 4 and the plate 7 is located a distance away from the guide block 20 along the axis of the shafts 9. Accordingly, the plate 7 and guide block 20 cannot properly be considered to constitute a unitary guide "block" as claimed. As the nuts 10 engage a surface of the plate 7, and the plate 7 is not a unitary part of the guide block 20, the limitations of claims 1 and 10 are not anticipated by Morgan.

Furthermore, claims 1 and 10 have been amended to recite "a <u>single</u> threaded shaft extending outwardly from <u>a centerpoint of</u> said second surface of said guide block". To the contrary, Morgan teaches a device having two threaded shafts extending from a surface of the guide block near each end thereof. As such, Morgan does not anticipate claims 1 & 10 as amended.

The single shaft design of the present invention allows the operator to quickly and easily adjust the position of the guide block relative to the blade by rotating the shaft with respect to the mounting bracket (specification, page 6, lines 8-21). This type of adjustment could not be done with a device having two shafts, such as the Morgan device, unless synchronous rotation of the two shafts was ensured. Furthermore, once the longitudinal position of the guide block is established with relation to the blade, the single shaft design allows the guide block to be rotated to optimize the alignment of the guide block with the blade. Where two shafts are used, as in Morgan, the guide block is rendered non-rotatable in relation to the mounting bracket once the shafts are affixed thereto.

Prior to applicant's invention, in order to utilized a single threaded shaft to carry a guide block, the guide block surface engaging the blade was required to have a circular cross section. The block in these types of prior art devices was fixedly attached to the end of the threaded shaft. The threaded shaft was then rotated in relation to the frame or housing of the machine to adjust the position of the guide block relative to the blade. A guide block with a circular cross section would be oriented in the same manner in relation to the blade no matter what its vertical positioning.

Polygonally shaped guide blocks, more particularly rectangular shaped guide blocks provide a significant benefit over circular shaped guide blocks in that a rectangular block will have a greater surface area in contact with the blade providing improved performance. The problem encountered with use of a polygonal shaped block fixed to the end of a single threaded shaft is that once the longitudinal position of the guide block is set such that it is in optimal contact with the blade surface the orientation of the polygonal shaped block will most likely be

misaligned in relation to the blade. If, on the other hand, the polygonal shaped block is permitted to freely rotate relative to the threaded shaft, the guide block may be aligned properly, but it could not be secured and would be subject to movement upon rotation of the blade.

To overcome these deficiencies, and to permit a polygonal shaped guide block to be used in association with a single threaded shaft design, applicant has come up with a unique configuration whereby the block is freely rotatable relative to the threaded shaft to allow alignment with the blade after the longitudinal positioning has been set, AND a mechanism is provided for rendering the block non-rotatable to ensure that it remains in alignment with the blade during operation. Such a configuration was not known or suggested prior to applicant's invention.

For the foregoing reasons, the rejection of Claims 1 & 10 as being clearly anticipated by Morgan is improper and withdrawal of this rejection is respectfully requested.

Claims 14-20 have been finally rejected under 35 U.S.C. Section 102 (b) as being anticipated by Edmisson (U.S. Patent No. 4,625,810). Claims 14-20 have further been finally rejected under 35 U.S.C. Section 102 (b) as being anticipated by Takahashi et al (U.S. Patent No. 4, 632,074). Finally, claims 14-16 have been rejected under 35 U.S.C. Section 102 (b) as being anticipated by Krebsbach (U.S. Patent No. 5, 993, 915). The Office Action states that each of Edmisson, Takahashi and Krebsbach "discloses a metallic insert (i.e., a metallic structure, e.g., 10, 36) with every structural limitation of the claimed invention."

Claim 14 has been amended to more clearly recite the bi-metallic nature of the insert. The block insert as claimed includes "a first metallic material . . . [and] a second metallic material . . . , wherein said first metallic material is harder than said second metallic material".

Per amended claim 14, the block insert further includes "a mixture of said first metallic material and said second metallic material at a center region of said insert." The metal used on the lower region is in direct contact with the saw blade and therefore consists of a highly abrasion resistant alloy. The upper region is designed to be softer to permit drilling for the tapped screw holes and circular recess. "The bimetallic guide insert is formed in such a way that the region near the center of the insert 24 consists of a combination of the two metals, thereby providing one unitary, solid, bimetallic insert." (Specification, page 7, lines 18-21).

Neither Edmisson, Takahashi, nor Krebsbach disclose a device with all of the claimed structure of amended claim 14. The insert 36 of Edmisson is merely described as "a wear-resistant hard metal", and does not disclose or suggest an insert formed from two different metal materials, nor does it disclose or suggest a center region which is a mixture of the two metals. Similarly, Takahashi teaches a wear-resistant member having a ferrous base body 12 and a pressurized or compressed powder body 11 mounted thereon by way of a flux layer consisting of boron or phosphorus interposed therebetween, and does not disclose or suggest a center region which is a mixture of the two metals as set forth in amended claim 14. Krebsbach teaches a method of fusing a thermal spray coating to a base material employing infrared heating, and does not disclose or suggest a center region which is a mixture of the two metals as set forth in amended claim 14. Furthermore, as discussed in the first response, Krebsbach refers to use of austenitic chromium carbide which, by definition, precludes changing the metallurgical structure by thermal treatment as is necessary to form the bi-metallic block of the insert set forth in claims 14-20. Accordingly, the Section 102 (b) rejection of claims 14-20 based on Edmisson, Takahashi and/or Krebsbach is now moot and should be withdrawn.

REJECTION UNDER 35 U.S.C. SECTION 103

Claims 7-9, 11 & 12 have been finally rejected under 35 U.S.C. Section 103 (A) as being unpatentable over Morgan in view of Robinson (U.S. Patent No. 3,104,575). As discussed in the original response, the combination of Robinson with Morgan does nothing to cure the deficiencies of Morgan with respect to independent claim 1 from which claims 7-9 depend nor does it do anything to cure the deficiencies of independent claim 10 from which claims 11 & 12 depend. Namely, Robinson does not disclose or suggest a guide for stabilizing a saw blade including a securing nut which engages a second surface of the guide block upon rotation into engagement therewith, thereby rendering the threaded shaft non-rotatable in relation to the guide block. Nor does Robinson disclose a single threaded shaft extending outwardly from a centerpoint of said second surface of said guide block as set forth in amended claims 1 and 10. Accordingly, the 103 rejection of claims 7-9 and 11 & 12 is improper and should be withdrawn.

Further, Robinson does not disclose or suggest a guide block of bi-metallic material as set forth in claims 7-9 and 11& 12. Robinson merely discloses that the wear components can be made of hardened steel and only suggests that the wear components of that guide be formed of a single material. Robinson only suggests the use of an alternative material and does not suggest in any way formation of a guide block comprising more than one metallic material. Accordingly, the 103 rejection of claims 7-9, 11 & 12 is improper for these additional reasons and withdrawal thereof is respectfully requested.

The examiner has further taken official notice that chromium carbide including austenitic chromium carbide is old and well known in the art and has well known benefits including

resistence to wear. Accordingly, the examiner has concluded that it would have been obvious to one of ordinary skill in the art to make the harden steel of chromium carbide including austenitic chromium carbide for the well known benefits including those described above. Applicant contends that in the present application, it would not have been obvious to one of ordinary skill in the art to make the saw guide inserts of chromium carbide as alleged by the examiner.

The generic term "chromium-carbide" refers to several different classes of alloys designed to survive in varying abrasive environments. Within each Class, there are application specific chemical compositions that are more or less metallurgically suitable for these abrasive environments. The range of chemical elements used in such alloys follows:

PERCENTAGE RANGES

ELEMENT	CLASS I	CLASS II	CLASS III
Carbon	2.5-7.0	2.5-12.0	2.5-12.0
Manganese	.60-5.0	.60-5.0	.60*5.0
Silicon	.25-2.5	.25-2.5	.25-2.5
Chromium	25.0-40.0	18.0-35.0	25.0-40.0
Molybdenum	-	.80-3.5	.80-3.5
Vanadium	-	.25-1.5	1.0-3.0
Boron	-	.005-2.0	.005-.75
Niobium	-	-	5.0-10.0
Tungsten	-	.25-.75	1.0-3.5

For reasons of not wanting to disclose "trade secrets" this application refers only to the generic term " bi-metallic chromium-carbide". Applicant has conducted extensive research on numerous materials attempting to develop a superior abrasion resistant material for saw guide inserts. The range of materials includes various steels: carbon, alloy, stainless tool steels, high speed tool steels, Nickel and Cobalt based high temperature alloys and cast irons and alloys of cast iron. Applicant has researched and used Copper based alloys including aluminum bronze

(Belfiglio P.N. 6,412,380), Plastics, Phenolics and Tungsten Carbide. Tests on various grades of steel, chromium-carbide and Tungsten Carbide were conducted using the test method described in ASTM G65-85, Schedule A.

This research led to development of a specific chemical composition of chromium-carbide found among one of the three classes listed above that has never been used, prior to my research, for saw guide inserts. To applicant's knowledge he is the only one using chromium-carbide for saw guide inserts. Hence, it is not "obvious to one having ordinary skill in the art to make the hardened steel of chromium-carbide, including austenitic chromium-carbide for the well known benefits including those described above."

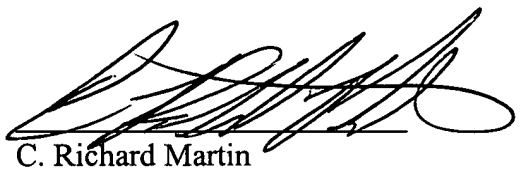
SUMMARY

Applicant submits that this application is in condition for allowance and early notice of same is earnestly solicited.

Should the Examiner have any questions, comments or suggestions, he is invited to contact applicant's representative at the telephone number indicated below.

Respectfully submitted,

Date: August 8, 2003

By: 

C. Richard Martin
Registration No. 37,080

MARTIN & MARTIN
125 S. Second St.
P.O. Box 29
Boonville, IN 47601-0029
Telephone: (812) 897-3650
Facsimile: (812) 897-3651

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1, and 20 have been amended as follows:

1. A guide for stabilizing a saw blade, said guide comprising:

a guide block having a first polygonal shaped surface for engaging a surface of said saw blade and a second opposing surface;

a single threaded shaft extending outwardly from a centerpoint of said second surface of said guide block, said threaded shaft having a first end rotatably engaging said guide block;

a securing nut threadably engaging an outer threaded surface of said threaded shaft, said securing nut being rotatable with respect to said threaded shaft such that a surface of the securing nut engages the second surface of said guide block upon rotation into engagement therewith thereby rendering the threaded shaft nonrotatable in relation to the guide block.

10. A guide for stabilizing a saw blade, said guide comprising:

a base plate having a top surface and a polygonal shaped bottom surface;

a single threaded shaft extending outwardly from a centerpoint of said top surface of said base plate, said threaded shaft having a first end rotatably engaging said base plate;

an insert disposed on said bottom surface of said base plate; and

means for selectively non-rotatably engaging the base plate and threaded shaft.

14. A unitary solid, bi-metallic block ~~metallic~~ insert for a saw blade guide for stabilizing a saw blade~~, said insert~~ comprising:

a first ~~bi-metallic block wherein the~~ metallic material ~~of said bi-metallic block~~ proximal to a first blade engaging surface thereof;

a second ~~is harder than the~~ metallic material proximal to a second guide engaging surface, wherein said first metallic material is harder than said second metallic material; and

a mixture of said first metallic material and said second metallic material at a center region of said insert.

15. The insert of claim 14, wherein the first metallic material proximal to the first blade engaging surface thereof is austenitic chromium-carbide.

16. The insert of claim 15, wherein the ~~bi-metallic~~ second metallic material proximal to the second guide engaging surface thereof is carbon steel.

20. The insert of claim 17, wherein said connecting means ~~bi-metallic block~~ includes one or more threaded openings for receiving one or more corresponding threaded fasteners extending from a bottom surface of said base plate.